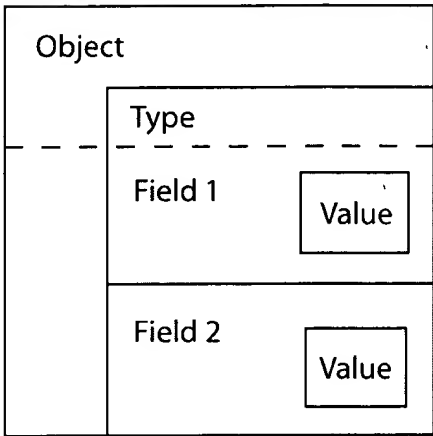




FIG. 1

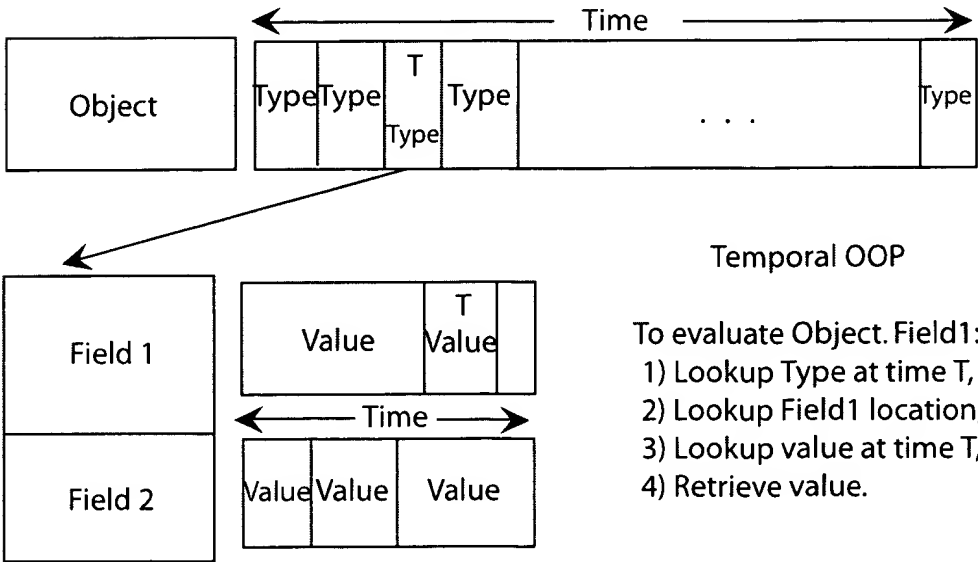
Object Oriented Runtime Comparison



OOP

To evaluate Object.Field1:  
1) Lookup static type,  
2) Lookup static Field1 location  
3) Retrieve value.

FIG. 2

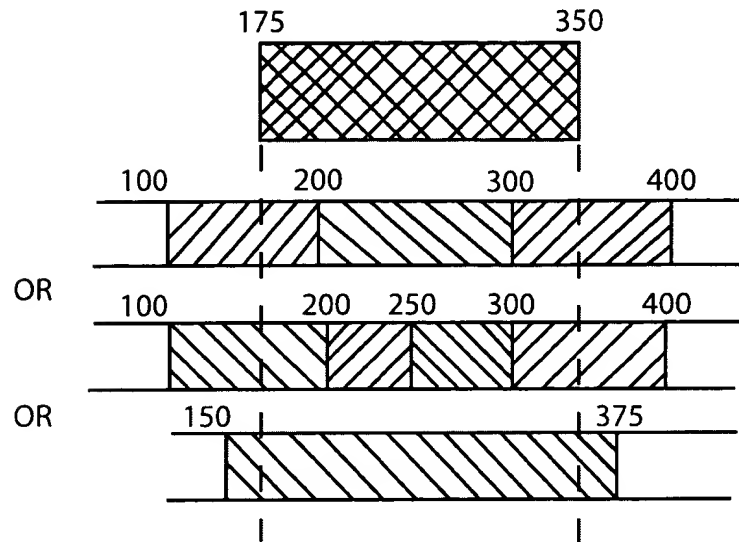


Temporal OOP

To evaluate Object.Field1:  
1) Lookup Type at time T,  
2) Lookup Field1 location,  
3) Lookup value at time T,  
4) Retrieve value.

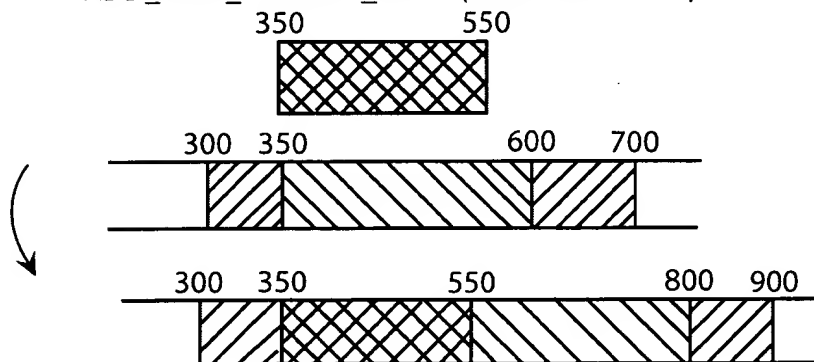
**FIG. 3**

GENERAL ERROR CONDITIONS



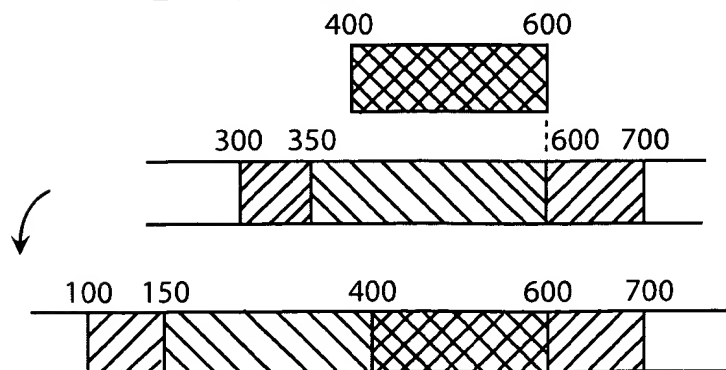
**FIG. 4**

ADD\_NEW\_ATTRVAL\_SHIFT (ONE END-POINT)



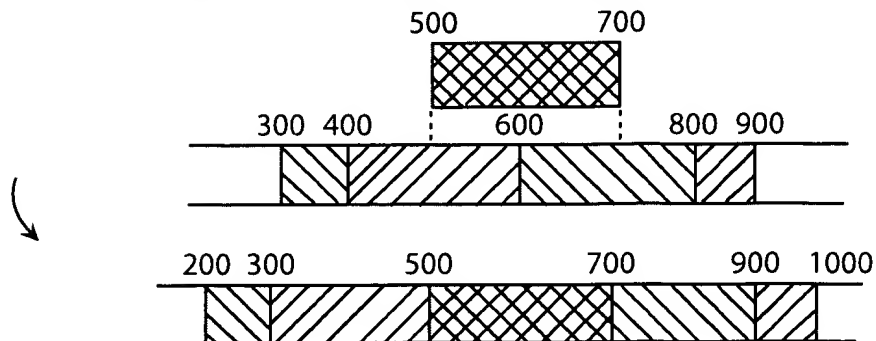
**FIG. 5**

ADD\_NEW\_ATTRVAL\_SHIFT (ONE END-POINT)



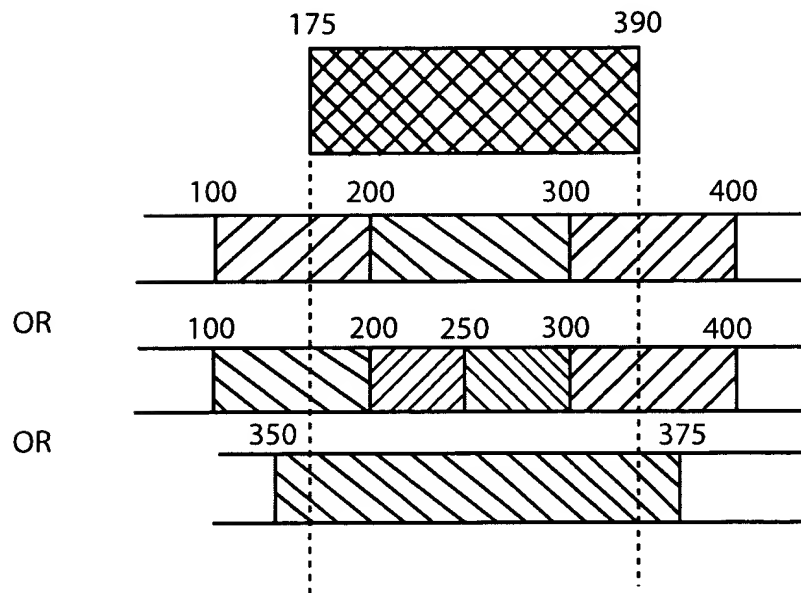
**FIG. 6**

ADD\_NEW\_ATTRVAL\_SHIFT (TWO END-POINTS)



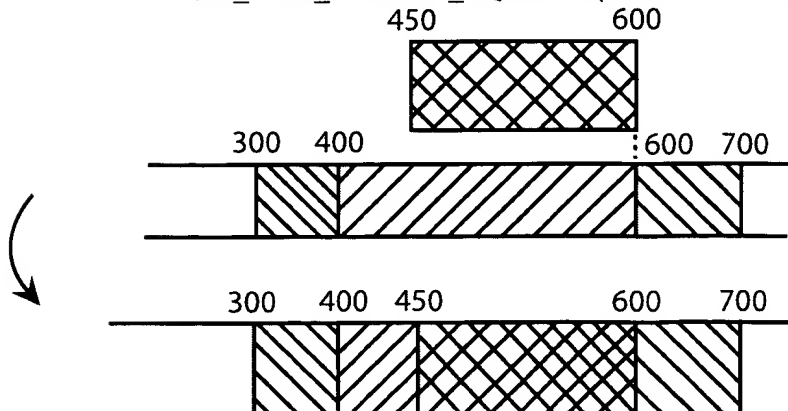
**FIG. 7**

GENERAL ERROR CONDITIONS



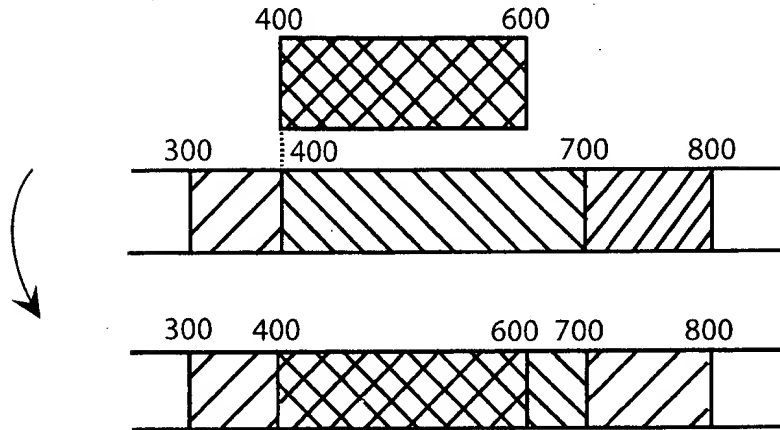
**FIG. 8**

ADD\_NEW\_ATTRVAL\_SQUEEZE (ONE END-POINT)



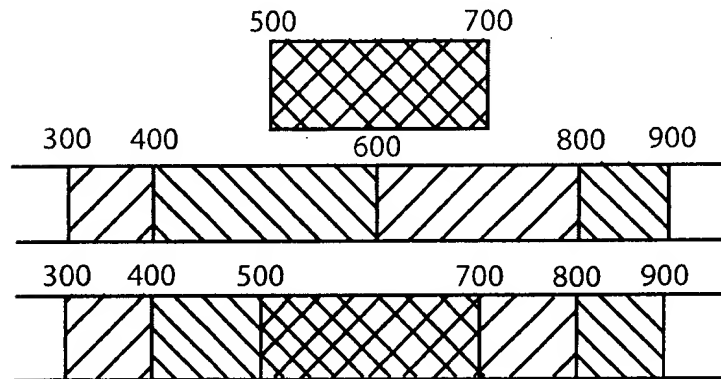
**FIG. 9**

ADD\_NEW\_ATTRVAL\_SHIFT (ONE END-POINT)



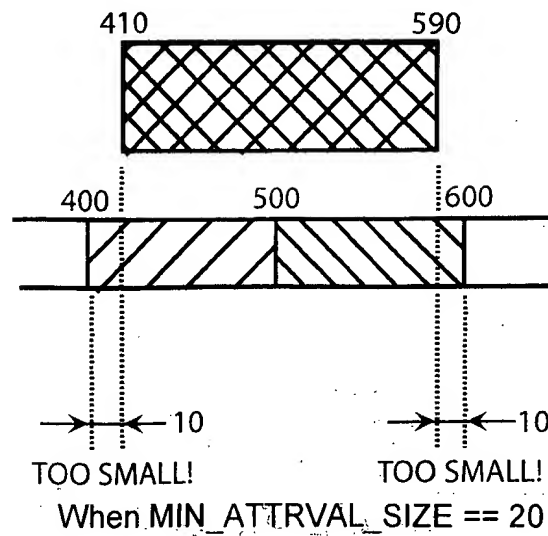
**FIG. 10**

ADD\_NEW\_ATTRVAL\_SQUEEZE (TWO END-POINTS)



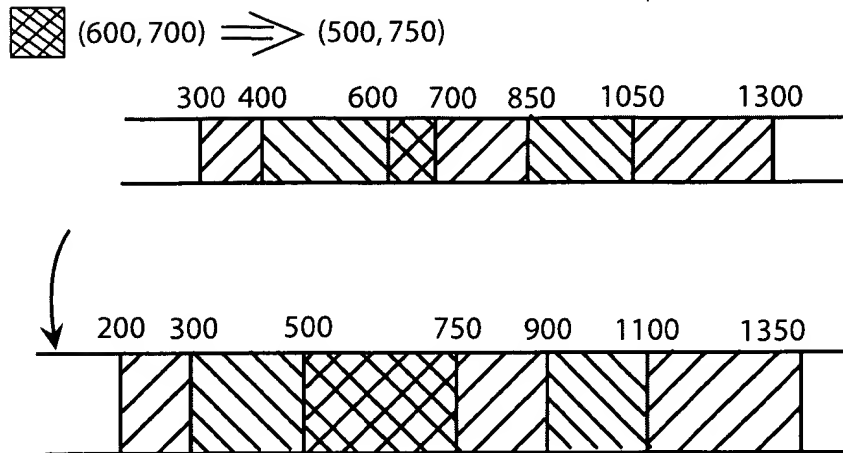
**FIG. 11**

ERROR CONDITION-ADD\_NEW\_ATTRVAL\_SQUEEZE

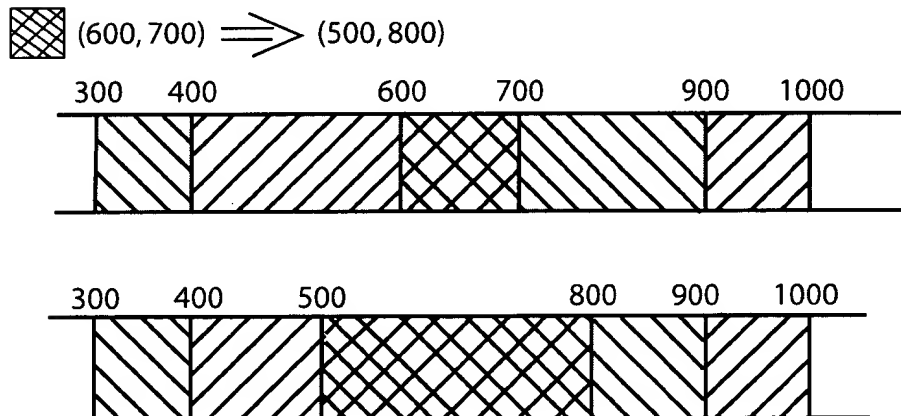


**FIG. 12**

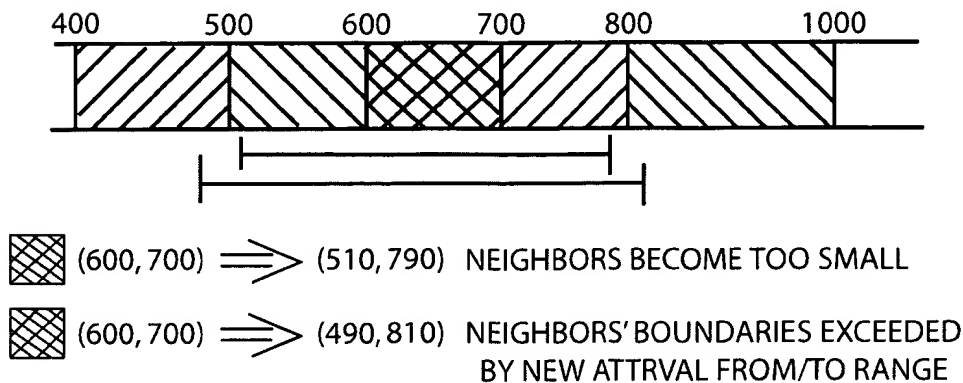
FINAL\_EDIT\_ATTRVAL\_SHIFT

**FIG. 13**

VFINAL\_EDIT\_ATTRVAL\_SQUEEZE

**FIG. 14**

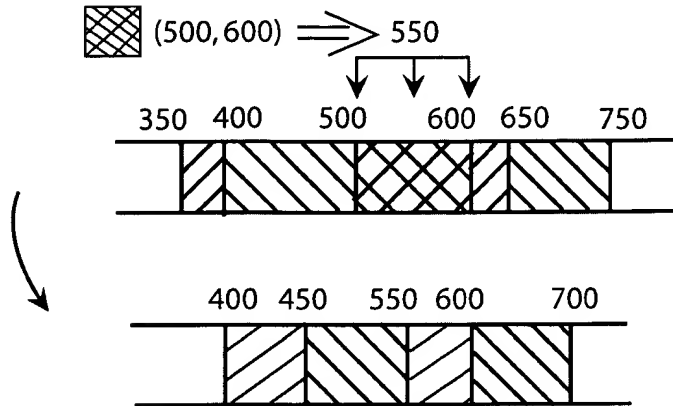
ERROR CONDITION-FINAL\_EDIT\_ATTRVAL\_SQUEEZE



When MIN\_ATTRVAL\_SIZE == 20 (for example)

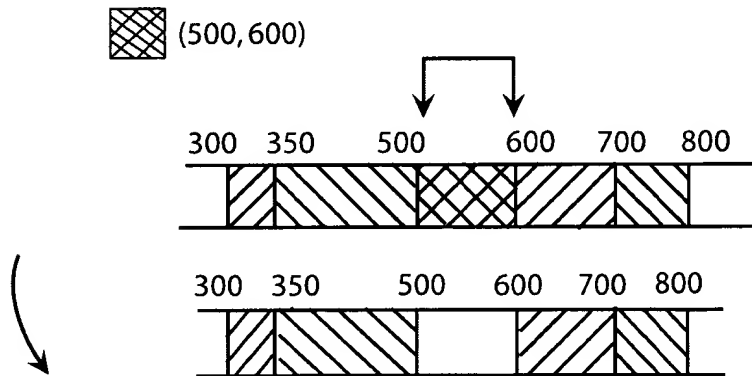
**FIG. 15**

FINAL\_REMOVAL\_ATTRVAL\_SHIFT



**FIG. 16**

FINAL\_REMOVAL\_ATTRVAL\_LEAVE\_GAP



**FIG. 17**

FINAL\_REMOVAL\_ATTRVAL\_FILL

